

REMARKS

Applicants thank Examiner for the telephone interview of December 11, 2003, discussing the Declarations under 37 CFR §§1.131 and 1.132 that show that Applicants were in possession of the invention prior to U.S. Patent No. 6,015,356 to Sullivan (as discussed below). Claims 26-32 are pending in this application. Claims 1-25 were canceled without disclaimer and prejudice. Applicants respectfully request entry of these amendments.

Submission of Copies of Foreign References and Publications Cited in IDS Submitted April 21, 2003

Submitted herewith are copies of references GR-HE, which were listed in an Information Disclosure Statement and a Form PTO-1449 submitted on April 21, 2003. Applicants note that these references were either previously cited or provided in earlier, related cases. For the Examiner's convenience, however, copies of the foreign references and publications not initialed by the Examiner on the PTO-1449 provided by Applicants are being submitted with this Response. Also submitted herewith is a copy of a new Form PTO-1449 listing references GR-HE.

Applicants respectfully request that these references be made of record in this application by the Examiner's completion and return of the enclosed Form PTO-1449. Since these references were identified in a prior IDS, and were previously either cited by the Examiner or provided by Applicants in earlier, related cases, no fee is believed due for the submission and consideration of these references. Should a fee be due, however, Applicants authorize charging such fee to the Deposit Account provided below.

THE REJECTIONS UNDER 35 U.S.C. § 102

The Rejection Based on Sullivan

The Examiner rejected claims 1, 3-11 and 17-19 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,015,356 to Sullivan (Sullivan '356) for the reasons provided on page 3 of the Office Action. The cancellation of claims 1-25 renders this rejection moot.

THE REJECTIONS UNDER 35 U.S.C. § 103

The Rejection Based on Sullivan in view of Ward

The Examiner rejected dependent claims 2 and 12-16 under 35 U.S.C. § 103 as being unpatentable over the Sullivan '356 patent in view of U.S. Patent No. 3,147,324 to Ward (Ward '324) for the reasons provided on pages 3 of the Office Action. The cancellation of claims 1-25 renders this rejection moot.

The Examiner also rejected dependent claims 26-32 under 35 U.S.C. § 103 as being unpatentable over Sullivan '356 in view of Ward '324 for the reasons provided on pages 3-5 of the Office Action. Applicants respectfully traverse this rejection on the grounds that Applicants both conceived and reduced to actual practice the subject matter of the present application at an earlier date than Sullivan '356.

In support of this position, Applicants submit herewith a Declaration of William E. Morgan under 37 CFR § 1.131 ("Morgan Declaration") and a Declaration of John P. Mulgrew under 37 CFR § 1.132 ("Mulgrew Declaration"), each including supporting documentation. The Morgan Declaration includes a copy of an Invention Record and inventor's notes that predate Sullivan '356. The Mulgrew Declaration includes a copy of U.S. Patent No. 5,733,428 assigned to Acushnet, which filing date is prior to Sullivan '356. Each and every element of independent claim 26 predates Sullivan '356, as shown below.

Evidence of Conception and Reduction to Practice Prior to Sullivan '356

With regard to the claimed invention, the only independent claim currently pending is claim 26. That claim recites the following features:

A method of forming a golf ball comprising the steps of

- (a) forming a golf ball core;
- (b) forming an inner cover layer around said golf ball core with a material having a first shore D hardness, wherein forming the inner cover layer comprises compression molding the inner cover material; and
- (c) casting an outer cover layer around said inner cover layer and golf ball core with a thermoset material having a second shore D hardness less than the first, wherein casting the outer cover layer comprises:
 - (i) placing the golf ball core in core holder;

- (ii) gelling the thermoset material in the first mold half;
- (iii) placing the golf ball core in to the gelling thermoset material in the first mold half,
- (iv) disengaging the golf ball core from the core holder after a selected period of time
- (v) placing the golf ball core, while still in said first mold half with the thermoset material against a second mold half having additional thermoset material and mating the two mold halves together; and
- (vi) curing the thermoset material in the mated mold halves.

Element (a) of claim 26 concerns forming a golf ball core. One example of support for element (a) is found on page 3, line 11 of the Invention Record attached to the Morgan Declaration as Exhibit A, which states that a core may be manufactured using conventional process techniques. In addition page 1 of inventor notes attached as Exhibit B of the Morgan Declaration shows drawings of several golf balls having a solid or liquid core. *See also*, Morgan Declaration at ¶8.

Element (b) of claim 26 concerns compression molding an inner cover with a material having a first material hardness around the golf ball core. One example of support for this element is found in the Invention Record (Morgan Decl., Exhibit A) at page 3, line 12, which describes forming an inner cover over the core either by compression or injection molding. In addition, the inventor notes (Morgan Decl., Exhibit B) at pages 3 and 4 discuss the use of SURLYN® 7930 and SURLYN® 8140 in the inner cover layer. *See* Morgan Decl. at ¶9. In addition, product information sheets for SURLYN® 7930 and SURLYN® 8140, which are attached to the Morgan Declaration as Exhibit C, identify the respective Shore D hardnesses of these materials as 68 and 65. *See also*, Morgan Decl. at ¶9. Thus, the enclosed invention record, inventor notes and product information sheets show that the inventors conceived and reduced to practice this element of the claimed invention.

Element (c) of claim 26 relates to casting a thermoset outer cover over the inner cover. In addition, the outer cover layer has a Shore D hardness of less than the inner cover layer. This feature is also supported by the documents discussed in the Morgan Declaration. For example, support for element (c) is found in the invention record (Morgan Decl., Exhibit A) at page 3, lines 13-14, which describes casting a reactive liquid material around the inner cover. The invention record further explains on page 3, lines 15-17 that the “thin veneer” that forms the outer cover may be a “soft but abrasion resistant material.” Further, the invention

record at page 2, lines 15-16 explains that a “castable reactive material” is applied to make surface layers. As discussed in the specification, the term “castable reactive material” comprises thermoset materials such as thermoset polyurethanes and urethanes. *See, e.g.*, Specification at page 6, lines 21-26 and page 7, lines 13-19. Thus, the enclosed invention record, inventor notes and product information sheets show that the inventors conceived and reduced to practice this element of the claimed invention. *See* Morgan Decl. at ¶10.

The inventor notes further illustrate various soft-over-hard combinations of materials that also were being considered. For example, the inventor notes (Morgan Decl., Exhibit B) at pages 2-4 discuss using a harder mantle (inner cover) and a softer outer layer. Examples of a harder mantle and a softer outer layer are shown on pages 3-4 of the inventor notes, which discusses the use of SURLYN® 8320 in the outer cover layer and the use of SURLYN® 7930 or SURLYN® 8140 in the inner cover layer. Product information sheets for SURLYN® 8320, SURLYN® 7930 and SURLYN® 8140 (Morgan Decl., Exhibit C) identify the respective Shore D hardnesses of these materials as 36, 68 and 65.

The remaining portion of element (c) recites steps for carrying out the casting process as elements (i)-(vi). As discussed below, and in the Mulgrew Declaration, evidence of conception and reduction to practice of this aspect of the claimed invention is supported by the ‘428 patent. The ‘428 patent indicates that Dean Snell’s development of the casting process predates the December 23, 1996 of the Sullivan ‘356 patent. Dean Snell is a co-inventor of this application who also helped develop the casting that ultimately resulted in the ‘428 patent.

As can be seen in the ‘428 patent, Mr. Snell’s contributions to the development of the casting process as claimed in the present invention predates December 23, 1996, and therefore shows that all elements of the claimed invention were conceived and reduced to practice before the Sullivan ‘356 patent. Moreover, because the present application was filed after November 29, 1999, the provisions of 35 U.S.C. §103(c) apply to preclude the ‘428 patent from being used against the pending claims. The current application has a priority claim to a parent application filed May 27, 1997. Since the ‘428 patent did not issue until 1998, it would only qualify as prior art to the present application under 35 U.S.C. §102(e). Further, the ‘428 patent and the presently claimed invention were commonly owned and subject to an obligation of assignment to the same entity at the time the invention was made. Because of its limited availability as prior art, 35 U.S.C. §103(c) provides that the ‘428 patent may not be relied upon to reject the claims in this application. Therefore, while the ‘428

patent demonstrates conception and reduction of practice of some elements of the presently claimed invention, it can not be used to reject the pending claims.

Each of the elements of the casting process in claim 26 are described in the '428 patent. Element (i) of claim 26 concerns placing the golf ball core in a core holder. One example for support for this element is found in the '428 patent at column 3, lines 53-54, describing a ball cup (core holder) that holds a ball core. Another example of support for this element is found in Figures 3 and 3a, which illustrates the ball cup (core holder). Accordingly, the '428 patent shows that Applicants conceived and reduced to practice this element of the claimed invention prior to Sullivan '356.

Element (ii) of claim 26 concerns gelling the thermoset material in a first mold half. One example for support of this element is found in the '428 patent at column 5, lines 38-52, which describes mixing of a prepolymer of a thermoset material (polyurethane) and a curative that is fed into a top mold half (first mold half) and allowed to react for a period of time before a core is placed into the mold half. Accordingly, the '428 patent shows that Applicants conceived and reduced to practice this element of the claimed invention prior to Sullivan '356.

Element (iii) of claim 26 concerns placing the golf ball core into the gelling thermoset material in the first mold half. One example for support of this element is found in the '428 patent at column 5, lines 52-56, describing the core being placed into the gelling thermoset material. Accordingly, the '428 patent shows that Applicants conceived and reduced to practice this element of the claimed invention prior to Sullivan '356.

Element (iv) of claim 26 concerns disengaging the golf ball core from the core holder after a period of time. Support for this element may be found, for example, in the '428 patent at column 5, line 66 to column 6, line 7, describing the release of the core after the thermoset material is allowed to gel for a period of time. Accordingly, the '428 patent shows that Applicants conceived and reduced to practice this element of the claimed invention prior to the Sullivan '356 patent.

Element (v) of claim 26 concerns placing the golf ball core, while still in the first mold half, against a second mold half having additional thermoset material and mating the two mold halves. Support for this element may be found, for example, in the '428 patent at column 6, lines 1-7, describing that the first mold half having a core and solidified cover half

is mated with a second mold half having additional thermoset material. Another example of support for this element is found in Figure 6 of the '428 patent illustrates a mold half having golf ball core and a solidified cover half that is inverted and ready to be placed into a second mold half that is being filled with a pre-gelled thermoset material. Accordingly, the '428 patent shows that Applicants conceived and reduced to practice this element of the claimed invention before Sullivan '356.

Element (vi) of claim 26 concerns curing the thermoset material in the mated mold halves. One example of support for this element is found in the '428 patent at column 6, lines 38-45, describing the curing process of clamping the mold halves under a given pressure and temperature for a period of time. Accordingly, the '428 patent shows that Applicants conceived and reduced to practice this element of the claimed invention prior to the Sullivan '356 patent.

Evidence of Diligence

As discussed with the Examiner during the telephonic interview, Applicants representatives have been diligent in preparing and filing the present application. As explained below, and also in the Mulgrew Declaration, the time period for which Applicants representatives diligently were working to prepare and file the present application covers more than the 5-month time period needed here to successfully swear behind the Sullivan '356 patent.

In particular, the process for internal review of inventions involved an inventor preparing and submitting an invention record to a patent committee. The patent committee meets frequently, usually once each month, to review and discuss invention records that have been submitted since the previous committee meeting was held. The internal review of invention records is thus conducted in the order in which the invention records are submitted.

If the committee approves of preparing a patent application for an invention, the invention record is then provided to Applicants' representatives. Applicants representatives then assign an attorney or patent agent to prepare the application. The attorney or agent will then meet with the inventor or inventors to discuss and further understand every aspect of the invention. Meetings of this kind are usually conducted on a monthly basis.

After reviewing and discussing the invention record with the inventors, the attorney or agent will then prepare a draft of the application for review by the inventor or inventors. The attorney or agent will address any comments or changes that an inventor may have, and then prepare a second draft of the application. Second drafts of applications are then reviewed by one or more members of the patent committee who may be selected to review the application based on their technical expertise or experience.

Any comments to the second draft of the application from the patent committee are then discussed with the inventor and a final draft is prepared. After reviewing and approving the final draft, the inventors and company representatives sign the necessary forms for filing the application and return them to the attorney or agent for filing. At each step of the process described above, preparation and filing of patent applications are handled in chronological order. In general, the time period between when an inventor submits an invention record and the actual filing of a patent application is longer than the 5-month period needed here in order to swear behind the Sullivan '356 patent. As stated in the Mulgrew Declaration, the drafting of this application in particular began prior to the critical date of the Sullivan patent.

MPEP §2138.06 provides that “[t]he diligence of attorney in preparing and filing patent applications inures to the benefit of the inventor.” As explained in *Bey v. Kollonitsch*, 866 F.2d 1024 (Fed. Cir. 1986), all that is required to show diligence is that an attorney worked reasonably hard on the application during the continuous critical period. Moreover, the Court in *Bey* further explained that if the attorney has a reasonable backlog of cases that are taken up in chronological order, and they are carried out expeditiously, that is sufficient to satisfy the diligence requirement.

Applicants respectfully submit that the attorneys handling the preparation and filing of the present application worked diligently by expeditiously handling their case load in chronological order during the 5-month critical period between the filing of the present application and the critical date of Sullivan '356. For these reasons, Applicants respectfully submit that the diligence requirement of MPEP 2138.06 has been amply satisfied.

In light of the Morgan Declaration and the Mulgrew Declaration, Applicants respectfully submit that the Examiner's rejections based on Sullivan '356 have been overcome. Sullivan '356 is no longer available as prior art in view of the Morgan Declaration and the Mulgrew Declaration predating Sullivan '356. Although the Examiner

has not relied upon Shimosaka '665 to reject any claims, Applicants note that the evidence provided in this Response to swear behind Sullivan '356 also would be effective to remove this reference from consideration.

Therefore, the only remaining reference raised by the Examiner is Ward '324. This secondary reference of the Examiner's § 103 rejection does not disclose or suggest all of the elements of the pending independent claims, and therefore by definition does not disclose or suggest all of the elements of the rejected dependent claims.

The Dependent Claims

With regard to dependent claims 27-32, Applicants respectfully submit that these claims are allowable at least by virtue of their dependency off of allowable claim 26. In addition, however, Applicants respectfully submit that several features recited in the dependent claims are neither disclosed nor suggested by the art cited by the Examiner. For instance, Ward '324 is silent with regard to forming an outer layer having a thickness of less than about 0.05 inches as recited in claim 32. Nor would it be obvious to form such a thin layer from Ward '324 since the cover in that reference is a single layer of material formed over a wound center. *See, e.g.*, Figs. 2-5 and col. 3, lines 53-56. For at least these reasons, Applicants respectfully submit that the rejections under 35 U.S.C. § 103 have been overcome.

CONCLUSION

All claims are believed to be in condition for allowance. If the Examiner believes that the present amendments still do not resolve all of the issues regarding patentability of the pending claims, Applicants invite the Examiner to contact the undersigned attorneys to discuss any remaining issues.

A Petition for Extension of Time is submitted herewith, with the provision for the required fee, to extend the time for response two months to and including December 16, 2003. No other fees are believed due. Should any additional fee be required, however, please charge such fee to Swidler Berlin Shreff Friedman, LLP Deposit Account No. 195127, Order No. 20002.0067.

Respectfully submitted,
SWIDLER BERLIN SHREFF FRIEDMAN, LLP



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By: _____

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